

REMARKS

Claims 1-10 were originally filed in this application. In this Response, claims 5 and 10 have been amended. No claims have been cancelled or added. Accordingly, claims 1-10 are currently under consideration. No new matter has been added.

Amendment and cancellation of a claim is not to be construed as a dedication to the public of any subject matter. Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE**".

Rejection under 35 U.S.C. §112, second paragraph

Claims 1, 5, 6, and 10 stand rejected under 35 U.S.C. §112, second paragraph as indefinite. In support of the rejection, the Office Action asserts that the scope of the phrase "substantially greater" as recited in claims 1 and 6 is unascertainable, and further that antecedent basis is lacking for claims 5 and 10 with respect to the phrase "said monocrystalline silicon." Claims 5 and 10 have been amended to depend from 2 and 7 respectively. With respect to claims 1 and 6, Applicant disagrees that the phrase "substantially greater than" is indefinite.

The fact that claim language, including terms of degree, may not be precise, does not automatically render a claim indefinite under 35 U.S.C. §112, second paragraph, *see Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984). Instead, definiteness of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of the specification. The term "substantially" is often used in conjunction with another term to describe a particular characteristic of the claimed invention. While it is a broad term, it is not to be equated with indefiniteness, *see In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960) and *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). For example, in *In re Mattison* 509 F.2d 563, 184 USPQ 484 (CCPA 1975), the court held that the limitation "to substantially increase the efficiency of the compound as a copper extractant" was definite in view of the specification, and in *Andrew Corp. v. Gabriel*

Electronics, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988), the court held that the limitation “which produces substantially equal E and H plane illumination patterns” was definite because one of ordinary skill in the art would know what was meant by “substantially equal.”

In a similar manner, the phrase, “having a thermal conductivity substantially greater than silver” is not indefinite. One of ordinary skill in the art would know what is meant by the phrase “substantially greater than” and would be able to appreciate how it helps describe the claimed heat transfer surface. As the Office Action itself notes, “the ‘person having ordinary skill’ in this art has the capability of understanding the scientific and engineering principles applicable to the claimed invention” (*see* Office Action, pg. 4).

Applicant requests that the rejections under 35 U.S.C. §112, second paragraph be withdrawn.

Double Patenting

Claims 1-10 stand rejected under the judicially created doctrine of double patenting over claims 1, 11, 12, and 29 of U.S. Patent No. 6,132,823. Applicant will reply to this rejection when allowable subject matter has been indicated. Until then, Applicant has no way of knowing whether a rejection under judicial double patenting is proper or whether submission of a terminal disclaimer under 37 C.F.R. §1.321 would be appropriate.

Rejections under 35 U.S.C. §102

Claims 1 and 5 stand rejected under 35 U.S.C. §102(a) as anticipated by U.S. Patent Nos. 4,857,675 to Marancik *et al.* (“Marancik”) and 5,450,266 to Downie (“Downie”). With respect to Marancik, the Office Action states that “Marancik discloses a super conducting heat transfer cable surface (abstract)” and thus the reference is anticipatory. With respect to Downie, the Office Action asserts that “Downie discloses a superconducting heat transfer surface” and thus the reference is anticipatory.

Applicant strongly disagrees with both assertions. To be anticipatory, a reference must teach each and every element of the claimed invention. Claim 1 recites a "heat transfer surface having a thermal conductivity substantially greater than silver." Marancik and Downie each fail to teach or to disclose material having such a thermal conductivity.

Indeed, neither Marancik nor Downie even discuss the thermal conductivity of their heat transfer surfaces. Nor do they disclose or even suggest why having a thermal conductivity substantially greater than silver may be desirable. This to be expected because the Marancik and Downie patents discuss electrical superconductors, that is, compositions having very high *electrical* conduction properties. They speak nothing of heat transfer surfaces having the thermal conductivity recited in Applicant's claims. Electrical conductivity is not synonymous with thermal conductivity. The rejections under 35 U.S.C §102 are improper and should be withdrawn.

CONCLUSION

Applicant has responded to each matter of substance raised in the Office Action and believes that the case is in condition for allowance. Should the Examiner have any requests, questions, or suggestions, he is invited to contact Applicant's agent at the number listed below.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

5. The heat transfer surface of claim 2 [1] wherein said monocrystalline silicon has a purity greater than 99.999%

10. The heat transfer surface of claim 7 [6] wherein said monocrystalline silicon has a purity greater than 99.999%.